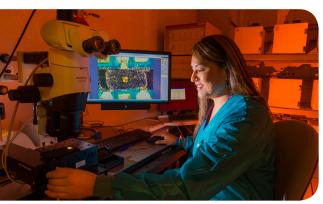
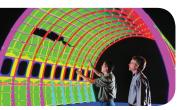
# Sandia<sub>National Laboratories</sub>









Exceptional service in the national interest

Sandia grew out of America's World War II effort to develop the first atomic bombs. Today, keeping the U.S. nuclear stockpile safe, secure and effective is a major part of Sandia's work as a multidisciplinary national security, engineering laboratory. But Sandia's role has evolved to address the additional complex threats facing our country. Sandia carries out research and development in:

**Nuclear Weapons** – Supporting U.S. deterrence policy by helping sustain, modernize and secure the nuclear arsenal.

**Defense Systems & Assessments** – Supplying new capabilities to U.S. defense and national security communities.

**Energy & Climate** – Ensuring the stable supply of energy and resources, and protection of infrastructure.

**Global Security** – Focusing on the protection of nuclear assets and nuclear materials, and addressing nuclear emergency response and nonproliferation worldwide.

Sandia's science, technology and engineering foundations enable our unique mission. The laboratories' highly specialized research staff is at the forefront of innovation, collaborating with universities and companies and performing multidisciplinary science and engineering research programs with significant impact on U.S. security.



Sandia people work at the laboratories' headquarters in Albuquerque, New Mexico; at a second lab in Livermore, California; and at other sites including Carlsbad, New Mexico; Las Vegas and Tonopah, Nevada; Amarillo, Texas; and Kauai, Hawaii.

# **Budget**

Sandia's operating costs were about \$3 billion in fiscal year 2016.

# **Capabilities**

Meeting tomorrow's national security challenges will require readiness, excellence in engineering and rapid innovation. Sandia will help the nation solve significant problems with core capabilities in:

- Systems engineering and integration
- Cybersecurity and risk analysis
- High-performance computing, as well as modeling and simulation
- Extreme-environment testing at unique facilities
- Nanotechnologies and microsystems

## **Collaboration**

Sandia's customers and collaborators include many federal, state and local agencies, companies and academic institutions. Partnerships are formed through cooperative agreements, licensing, technical assistance, centers of excellence, use of unique Sandia facilities, personnel exchanges and other mutually beneficial arrangements.

### **Achievements**

Sandia has pioneered such products as cleanrooms for microelectronics manufacturing, triggers for automobile airbags and high-resolution radars that see through clouds and darkness. Recent achievements include:

- The B61-12 Life Extension Program that is modernizing the aging B61 bomb to ensure it continues to support the nation's nuclear deterrence policy
- Satellite sensors that help the nation monitor worldwide nuclear activity from space
- The PANTHER project to turn huge amounts of complex, real-time information into meaningful patterns so national security analysts can work faster and smarter
- New technology that dramatically improves the endurance of legged robots to aid in disaster response

 An inexpensive, smartphone-controlled device to detect Zika and other mosquito-borne illnesses within 30 minutes

